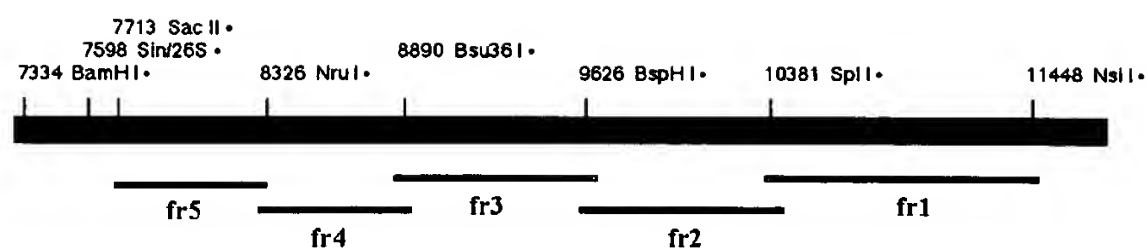


Fig. 1

A)



B)

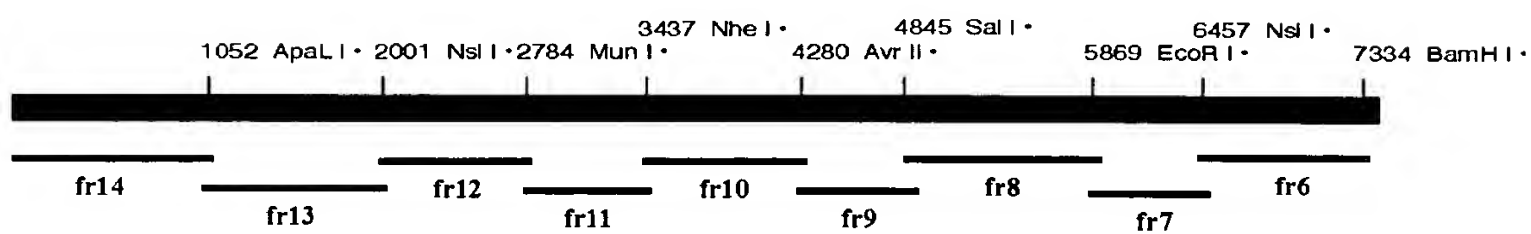


Fig. 2A

Figure 2B

ATTGACGGCGTAGTACACACTATTGAATCAAACAGCCGACCAATTGCACTACCATCACAATGGAGAAGCCAGTAG
TAAACGTAGACGTAGACCCCCAGAGTCCGTTTGTCTGCAACTGCAAAAAAGCTTCCCGCAATTTGAGGTAGTAG
CACAGCAGGTCACTCCAAATGACCATGCTAATGCCAGAGCATTTCGCATCTGGCCAGTAACTAATCGAGCTGG
AGGTTCTTACCACAGCGACGATCTTGGACATAGGCAGCGCACCGGCTCGTAGAATGTTTTCCGAGCACCAGTATC
ATTGTGTCTGCCCCATGCGTAGTCCAGAAGACCCGGACCGCATGATGAAATATGCCAGTAACTGGCGGAAAAAG
CGTGCAAGATTACAAACAAGAACTTGCAATGAGAAGATTAAGGATCTCCGGACCGTACTTGATACGCCGGATGCTG
AAACACCATCGCTCTGCTTTCACAACGATGTTACCTGCAACATGCGTGCCGAATATTCGTCATGCAGGACGTGT
ATATCAACGCTCCCGGAACCTATCTATCATCAGGCTATGAAAGGCGTGCGGACCCTGTACTGGATTGGCTTCGACA
CCACCCAGTTCATGTTCTCGGCTATGGCAGGTTCTGACCCTGCGTACAACACCAACTGGGCCGACGAGAAAGTCC
TTGAAGCGCGTAACATCGGACTTTGCAGCACAAAGCTGAGTGAAGGTAGGACAGGAAAATTGTCGATAATGAGGA
AGAAGGAGTTGAAGCCCGGGTTCGCGGGTTTATTTCTCCGTAGGATCGACACTTTATCCAGAACACAGAGCCAGCT
TGCAGAGCTGGCATCTTCCATCGGTGTTCCACTTGAATGGAAAGCAGTCGTACACTTGCCGCTGTGATACAGTGG
TGAGTTGCGAAGGCTACGTAGTGAAGAAAATCACCATCAGTCCCGGGATCACGGGAGAAACCGTGGGATACGCGG
TTACACACAATAGCGAGGGGCTTCTTGCTATGCAAAGTTACTGACACAGTAAAAGGAGAACGGGTATCGTTCCCTG
TGTGCACGTACATCCCGGCCACCATATGCGATCAGATGACTGGTATAATGGCCACGGATATATCACCTGACGATG
CACAAAACTTCTGGTTGGGCTCAACCAGCGAATTGTCTTAACGGTAGGACTAACAGGAACACCAACACCATGC
AAAATTACCTTCTGCCGATCATAGCACAAGGGTTTCAGCAAATGGGCTAAGGAGCGCAAGGATGATCTTGATAACG
AGAAAATGCTGGGTACTAGAGAACGCAAGCTTACGTACGGCTGCTTGTGGGCGTTTTCGCACTAAGAAAGTACATT
CGTTTTATCGCCACCTGGAACGCAGACCATCGTAAAAGTCCAGCCTCTTTTAGCGCTTTTCCCATGTCTGTCG
TATGGACGACCTCTTTGCCCATGTCTGCTGAGGCAGAAATTGAAACTGGCATTGCAACCAAAGAAGGAGGAAAAAC
TGCTGCAGGTCTCGGAGGAATTAGTCATGGAGGCCAAGGCTGCTTTTGAGGATGCTCAGGAGGAAGCCAGGCGG
AGAAGCTCCGAGAAGCACTTCCACCAATTAGTGGCAGACAAAGGCATCGAGGCAGCCCGCAGAAGTTTCTGCGAAG
TGGAGGGGCTCCAGGCGGACATCGGAGCAGCATTAGTTGAAACCCCGCGCGGTACGTAAGGATAATACCTCAAG
CAAATGACCGTATGATCGGACAGTATATCGTTGTCTCGCCAACTCTGTGCTGAAGAATGCCAAACTCGCACCAG
CGCACCCGCTAGCAGATCAGGTTAAGATCATAACACACTCCGGAAGATCAGGAAGGTACGCGGTCTGAACCATACG
ACGCTAAAGTACTGATGCCAGCAGGAGGTGCCGTACCATGGCCAGAATTCCTAGCACTGAGTGAGAGCGCCACGT
TAGTGTACAACGAAAGAGAGTTTGTGAACCGCAAACCTATACCACATTGCCATGCATGGCCCCGCCAAGAATACAG
AAGAGGAGCAGTACAAGGTTACAAAGGCAGAGCTTGCAAGAACAGAGTACGTGTTTGACGTGGACAAGAAGCGTT
GCGTTAAGAAGGAAGAAGCCTCAGGTCTGGTCTCTCGGGAGAACTGACCAACCCCTCCCTATCATGAGCTAGCTC
TGGAGGGACTGAAGACCCGACCTGCGGTCCCGTACAAGGTGCAACAATAGGAGTGATAGGCACACCGGGGTCCG
GCAAGTCAGCTATTATCAAGTCAACTGTCACGGCAGGAGATCTTGTTACCAGCGGAAAGAAAGAAATTGTCGCG
AAATTGAGGCCGACGTGCTAAGACTGAGGGGTATGCAGATTACGTGCAAGACAGTAGATTTCGGTTATGCTCAACG
GATGCCACAAAGCCGTAGAAGTGCTGTACGTTGACGAAGCGTTTCGCGTGCCACGCAGGAGCACTACTTGCTTGA
TTGCTATCGTCAGGCCCCGCAAGAAGGTAGTACTATGCGGAGACCCCATGCAATGCGGATTCTTCAACATGATGC
AACTAAAGGTACATTTCAATCACCTGAAAAAGACATATGCACCAAGACATTCTACAAGTATATCTCCCGCGCTT
GCACACAGCCAGTTACAGCTATTGTATCGACACTGCATTACGATGGAAAGATGAAAACCACGAACCCGTGCAAGA
AGAACATTGAAATCGATATTACAGGGGCCACAAAGCCGAAGCCAGGGGATATCATCCTGACATGTTTCCGCGGGT
GGGTTAAGCAATTGCAAATCGACTATCCCGGACATGAAGTAATGACAGCCGCGGCCTCACAAAGGGCTAACCAGAA
AAGGAGTGTATGCCGTCCGGCAAAAAGTCAATGAAAACCCACTGTACGCGATCACATCAGAGCATGTGAACGTGT
TGCTCACCCGCACTGAGGACAGGCTAGTGTGGAAACCTTGCAAGGCGACCCATGGATTAAGCAGCTCACTAACA
TACCTAAAGGAACTTTTCAAGCTACTATAGAGGACTGGGAAGCTGAACACAAGGGAATAATTGCTGCAATAAACA
GCCCCACTCCCGTGCCAATCCGTTTCAAGCTGCAAGACCAACGTTTGCTGGGCGAAAGCATTGGAACCGATACTAG
CCACGGCCGGTATCGTACTTACCGGTTGCCAGTGGAGCGAACTGTTCCACAGTTTGGCGGATGACAAACCACATT
CGGCCATTTACGCCTTAGACGTAATTTGCATTAAGTTTTTCGGCATGGACTTGACAAGCGGACTGTTTTCTAAAC
AGAGCATCCCACTAACGTACCATCCCGCCGATTACGCGAGGCGGTAGCTCATTGGGACAACAGCCCAGGAACCC
GCAAGTATGGGTACGATCACGCCATTGCCGCCGAACCTCTCCCGTAGATTTCCGGTGTTCCAGCTAGCTGGGAAGG
GCACACAACCTTGATTTGCAGACGGGGAGAACAGAGTTATCTCTGCACAGCATAACCTGGTCCCGGTGAACCGCA
ATCTTCCTCACGCCTTAGTCCCCGAGTACAAGGAGAAGCAACCCGGCCCGGTGCAAAAATTCTTGAACCAAGTTCA
AACACCACTCAGTACTTGTGGTATCAGAGGAAAAAATTGAAGCTCCCGTAAGAGAAATCGAATGGATCGCCCCGA
TTGGCATAGCCGGTGCAGATAAGAACTACAACCTGGCTTTCCGGTTTCCGCCGACGGCACGGTACGACCTGGTGT
TCATCAACATTGGAACCTAAATACAGAAACCACCACTTTCAGCAGTGCGAAGACCATGCGGCGACCTTAAAAACCC
TTTCGCGTTTCGGCCCTGAATTGCCTTAACCCAGGAGGCACCCCTCGTGGTGAAGTCCTATGGCTACGCCGACCGCA
ACAGTGAGGACGTAGTCACCGCTCTTGCCAGAAAGTTTGTGAGGGTGTCTGCAGCGAGACCAGATTGTGTCTCAA

GCAATACAGAAATACCTGATTTTCCGACAACCTAGACAACAGCCGTACACGGCAATTCACCCCGCACCATCTGA
ATTGCGTGATTTTCGTCCGTGTATGAGGGTACAAGAGATGGAGTTGGAGCCGCGCCGTTCATACC3CACCAAAGGG
AGAATATTGCTGACTGTCAAGAGGAAGCAGTTGTCAACGCAGCCAATCCGCTGGGTAGACCAGGCGAAGGAGTCT
GCCGTGCCATCTATAAACGTTGGCCGACCAGTTTTACCGATTACGCCACGGAGACAGGCACCGCAAGAATGACTG
TGTGCCTAGGAAAGAAAGTGATCCACGCGGTGCGCCCTGATTTCCGGAAGCACCAGAGCAGAAGCCTTGAAAT
TGCTACAAAACGCCTACCATGCAGTGGCAGACTTAGTAAATGAACATAACATCAAGTCTGTGCGCCATTCCACTGC
TATCTACAGGCATTTACGCAGCCGGAAGACCGCCTTGAAGTATCACTTAAGTCTTGACAACCGCGCTAGACA
GAACTGACGCGGACGTAACCATCTATTGCCTGGATAAGAAGTGGAAGGAAAGAATCGACGCGGCACTCCAACCTTA
AGGAGTCTGTAACAGAGCTGAAGGATGAAGATATGGAGATCGACGATGAGTTAGTATGGATCCATCCAGACAGTT
GCTTGAAGGGAAGAAAGGGATTACGTACTACAAAAGGAAAATTGTATTTCGTACTTCGAAGGCACCAAATTCATC
AAGCAGCAAAAGACATGGCGGAGATAAAGGTCTGTTCCTAATGACCAGGAAAGTAATGAACAACTGTGTGCCT
ACATATTGGGTGAGACCATGGAAGCAATCCGCGAAAAGTGCCCGGTGACCATAAACCGTCGTCTAGCCCGCCCA
AAACGTTGCCGTGCCTTTGCATGTATGCCATGACGCCAGAAAGGGTCCACAGACTTAGAAGCAATAACGTCAAAG
AAGTTACAGTATGCTCCTCCACCCCCCTTCTAAGCACAAAATTAAGAATGTTTCAGAAGGTTTCAAGTGCACGAAAG
TAGTCTGTGTTAATCCGCACACTCCCGCATTCGTTCCCGCCCGTAAGTACATAGAAGTGCCAGAACAGCCTACCG
CTCCTCCTGCACAGGCCGAGGAGGCCCCGAAGTTGTAGCGACACCGTCACCATCTACAGCTGATAACACCTCGC
TTGATGTCACAGACATCTCACTGGATATGGATGACAGTAGCGAAGGCTCACTTTTTTCGAGCTTTAGCGGATCGG
ACAACTCTATTACTAGTATGGACAGTTGGTCGTCAGGACCTAGTTCACTAGAGATAGTAGACCGAAGGCAGGTGG
TGGTGGCTGACGTTTCATGCCGTCCAAGAGCCTGCCCCATTCCACCGCCAAGGCTAAAGAAGATGGCCCCGCTGG
CAGCGGCTAGAAAAGAGCCCACTCCACCGCAAGCAATAGCTCTGAGTCCCTCCACCTCTCTTTTGGTGGGGTAT
CCATGTCCCTCGGATCAATTTTCGACGGAGAGACGGCCCCGCGAGGACGGTACAACCCCTGGCAACAGGCCCA
CGGATGTGCCTATGTCTTTTCGGATCGTTTTCCGACGGAGAGATTGATGAGCTGAGCCGAGAGTAACTGAGTCCG
AACCCGTCCTGTTTGGATCATTTGAACCGGGCGAAGTGAAGTCAATTATATCGTCCCGATCAGCCGTATCTTTTC
CACTACGCAAGCAGAGACGTAGACGCAGGAGCAGGAGGACTGAATACTGACTAACCAGGGGTAGGTGGGTACATAT
TTTCGACGGACACAGGCCCTGGGCACTTGCAAAAGAAGTCCGTTCTGCAGAACCAGCTTACAGAACCAGCCTTGG
AGCGCAATGTCCTGGAAAGAAATTCATGCCCGGTGCTCGACACGTCGAAAGAGGAACAACTCAAACCTCAGGTACC
AGATGATGCCCAAGGCAACAAAGTAGGTACCACTCTCGTAAAGTAGAAATCAGAAAGCCATAACCACTG
AGCGACTACTGTGAGGACTACGACTGTATAACTCTGCCACAGATCAGCCAGAATGCTATAAGATCACCTATCCGA
AACCATTGTACTCCAGTAGCGTACCGGCGAAGTACTCCGATCCACAGTTTCGCTGTAGCTGTCTGTAACAACTATC
TGCATGAGAACTATCCGACAGTAGCATCTTATCAGATTACTGACGAGTACGATGCTTACTTGGATATGGTAGACG
GGACAGTCGCCTGCCTGGATACTGCAACCTTCTGCCCCGCTAAGCTTAGAAGTTACCCGAAAAACATGAGTATA
GAGCCCCGAATATCCGCAGTGCGGTTCCATCAGCGATGCAGAACACGCTACAAAATGTGCTCATTGCCGCAACTA
AAAGAAATTGCAACGTCACGCAGATGCGTGAAGTCCAAACACTGGACTCAGCGACATTCAATGTGCAATGCTTTC
GAAAATATGCATGTAATGACGAGTATTGGGAGGAGTTTCGCTCGGAAGCCAATTAGGATTACCACTGAGTTTGTCA
CCGCATATGTAGCTAGACTGAAAGGCCCTAAGGCCCGCCGCACTATTTGCAAGACGTATAATTTGGTCCCATTCG
AAGAAGTGCCTATGGATAGATTTCGTATGGACATGAAAAGGGACGTGAAAGTTACACCAGGCACGAAACACACAG
AAGAAAGACCGAAAGTACAAGTGATAAAGCCGAGAACCCCTGGCGACTGCTTACTTATGCGGGATTACCCGGG
AATTAGTGCCTAGGCTTACGGCCGTCTTGCTTCCAAACATTACACGCTTTTTTGACATGTGCGCGGAGGATTTTG
ATGCAATCATAGCAGAACACTTCAAGCAAGGCGACCCGGTACTGGAGACGGATATCGCATCATTGACAAAAGCC
AAGACGACGCTATGGCGTTAACCAGTCTGATGATCTTGGAGGACCTGGGTGTGGATCAACCACTACTCGACTTGA
TCGAGTGCCTTTTGGAGAAATATCATCCACCCATCTACCTACGGGTACTCGTTTTAAATTCGGGGCGATGATGA
AATCCGGAATGTTCTCACACTTTTTGTCAACACAGTTTTTGAATGTGCTTATCGCCAGCAGAGTACTAGAAGAGC
GGCTTAAACGTCAGATGTGCAGCGTTCATTGGCGACGACAACATCATACTGGAGTAGTATCTGACAAAGAAA
TGGCTGAGAGGTGCGCCACCTGGCTCAACATGGAGGTTAAGATCATCGACGAGTATCGGTGAGAGACCACCTT
ACTTCTGCGGCGGATTTATCTTGCAAGATTTCGGTTACTTCCACAGCGTGCCGCGTGGCGGACCCcctgaaaaggc
tgtttaagttgggttaaaccgctcccagccgacgacgagcaagacgaagacagaagacgcgctctgctagatgaaa
caaaggcggtggttttagagtaggtataacaggcacttttagcagtggccgtgacgacccggtatgaggtagacaata
ttacacctgtcctactggcattgagaacttttggccagagcaaaagagcattccaagccatcagaggggaaataa
agcatctctacggtggtcctaaatagtcagcatagtagtatttcatctgactaataactacaacaccaccacctga
atagaggattctttaacatgctcggccgcccgttcccggtccccactgcatgtggaggccgcccggaagga
GGCAGGCGGCCCCGATGCCTGCCCCGCAACGGGCTGGCTTCTCAAATCCAGCAACTGACCACAGCCGTGAGTCCC
TAGTCATTGGACAGGCAACTAGACCTCAACCCCCACGTCCACGCCCCGACCGCGCCAGAAGAAGCAGGCGCCCA
AGCAACCACCGAAGCCGAAGAAACCAAAAACGCAGGAGAAGAAGAAGAAGCAACCTGCAAAACCCAAACCCGGAA
AGAGACAGCGCATGGCACTTAAGTTGGAGGCCGACAGATCGTTTCGACGTCAAGAACGAGGACGGAGATGTCATCG
GGCAGCACTGGCCATGGAAGGAAAGGTAATGAAACCTCTGCACGTGAAAGGAACCATCGACCACCTGTGCTAT
CAAAGCTCAAATTTACCAAGTCGTGAGCATAACGATGGAGTTTCGACAGTTGCCAGTCAACATGAGAAGTGAGG
CATTCACCTACACCAGTGAACACCCCGAAGGATTCTATAACTGGCACCAACGGAGCGGTGCAGTATAGTGGAGGTA
GATTTACCATCCCTCGCGGAGTAGGAGGCAGAGGAGACAGCGGTTCGTCCGATCATGGATAACTCCGGTCCGGTTG

TCGCGATAGTCCTTSTGGAGCTGATGAAGGAACACGAACTGCCCTTTTGGTTCGTACCTGGAATAGTAAAGGGA
AGACAATTAAGACGACCCCGGAAGGGACAGAAGAGTGGTCCGCAGCACCCTGGTTCACGGCAATGTGTTTGCTCG
GAAATGTGAGCTTCCCATGCGACCCGCCCGCCACATGCTATACCCGCGAACCTTCCAGAGCCCTCGACATCCTTG
AAGAGAACGTGAACCATGAGGCCTACGATACCCTGCTCAATGCCATATTGCGGTGCGGATCGTCTGGCAGAAGCA
AAAGAAGCGTCACTGACGACTTTACCCTGACCAGCCCCTACTTGGGCACATGCTCGTACTGCCACCATACTGAAC
CGTGCTTCAGCCCTGTTAAGATCGAGCAGGTCTGGGACGAAGCGGACGATAACACCATACGCATACAGACTTCCG
CCCAGTTTGGATACGACCAAAGCGGAGCAGCAAGCGCAAACAAGTACCGCTACATGTGCTTAAGCAGGATCACA
CCGTTAAAGAAGGCACCATGGATGACATCAAGATTAGCACCTCAGGACCGTGTAGAAGGCTTAGCTACAAAGGAT
ACTTTCTCCTCGCAAAATGCCCTCCAGGGGACAGCGTAACGGTTAGCATAGTGAGTAGCAACTCAGCAACGTCA
GTACACTGGCCCGCAAGATAAAACCAAAATTCTGTTGGGACGGGAAAAATATGATCTACCTCCCGTTACGGTAAAA
AAATTCCTTGACAGTGTACGACCGTCTGAAAGGAACAACTGCAGGCTACATCACTATGCACAGGCCGGGACCGC
ACGCTTATACATCCTACCTGGAAGAATCATCAGGGAAAGTTTACGCAAAGCCGCCATCTGGGAAGAACATTACGT
ATGAGTGCAAGTGCGGCGACTACAAGACCAGAACCGTTTCGACCCCGCACCGAAATCACTGGTTGCACCGCCATCA
AGCAGTGCGTCGCCTATAAGAGCGACCAAACGAAGTGGGTCTTCAACTCACCGGACTTGATCAGACATGACGACC
ACACGGCCCAAGGGAAATTGCATTTGCCCTTCAAGTTGATCCCGAGTACCTGCATGGTCCCTGTTGCCACGCGC
CGAATGTAATACATGGCTTTAAACACATCAGCCTCCAATTAGATACAGACCACTTGACATTGCTCACCACCAGGA
GACTAGGGGGCAAACCCGGAACCAACCACTGAATGGATCGTCGGAAAGACGGTCAGAACTTCACCGTCGACCGAG
ATGGCCTGGAATACATATGGGGAAATCATGAGCCAGTGAGGGTCTATGCCCAAGAGTCAGCACCAGGAGACCCTC
ACGGATGGCCACACGAAATAGTACAGCATTACTACCATCGCCATCCTGTGTACACCATCTTAGCCGTCGCATCAG
CTACCGTGGCGATGATGATTGGCGTAACTGTTGCAGTGTATGTGCCTGTAAAGCGCGCCGTGAGTGCCTGACGC
CATACGCCCTGGCCCCAAACGCCGTAATCCCAACTTCGCTGGCACTCTTGTGCTGCGTTAGGTGGCCAATGCTG
AAACGTTACCGGAGACCATGAGTTACTTGTGGTGAACAGTCAGCCGTTCTTCTGGGTCCAGTTGTGCATACCTT
TGGCCGCTTTCATCGTTCTAATGCGCTGCTGCTCCTGCTGCCTGCTTTTTTAGTGGTTGCCGGCGCCTACCTGG
CGAAGGTAGACGCCTACGAACATGCGACCACTGTTCCAAATGTGCCACAGATACCGTATAAGGCACTTGTTGAAA
GGGCAGGGTATGCCCCGCTCAATTTGGAGATCACTGTCATGTCCTCGGAGGTTTTGCTTCCACCAACCAAGAGT
ACATTACCTGCAAATTCACCACTGTGGTCCCCTCCCCAAAAATCAAATGCTGCGGCTCCTTGGAATGTCAGCCGG
CCGTTTCATGCAGACTATACCTGCAAGGTCTTCGGAGGGGTCTACCCCTTTATGTGGGGAGGAGCGCAATGTTTT
GCGACAGTGAGAACAGCCAGATGAGTGAGGCGTACGTCGAACTGTCAGCAGATTGCGCGTCTGACCACGCGCAGG
CGATTAAGGTGCACACTGCCGCGATGAAAGTAGGACTGCGTATAGTGACGGGAACACTACCAGTTTCTTAGATG
TGTACGTGAACGGAGTCACACCAGGAACGTCTAAAGACTTGAAAGTCATAGCTGGACCAATTCAGCATCGTTTA
CGCCATTCGATCATAAGGTGCTTATCCATCGCGGCTGGTGTAACACTATGACTTCCCGGAATATGGAGCGATGA
AACCAGGAGCGTTTGGAGACATTCAAGCTACCTCCTTGAAGGATCTCATCGCCAGCACAGACATTAGGC
TACTCAAGCCTTCCGCCAAGAAGCTGCATGTCCCGTACACGCAGGCCGCATCAGGATTTGAGATGTGGAAAAACA
ACTCAGGCCGCCCACTGCAGGAAACCGCACCTTTCGGGTGTAAGATTGCAGTAAATCCGCTCCGAGCGGTGGACT
GTTTCATACGGGAACATTTCCATTTCTATTGACATCCCGAACGCTGCCTTTATCAGGACATCAGATGCACCACTGG
TCTCAACAGTCAAATGTGAAGTCAGTGAGTGCATTATTCAGCAGACTTCGGCGGGATGGCCACCCTGCAGTATG
TATCCGACCGCGAAGGTCAATGCCCCGTACATTCGCATTCGAGCACAGCAACTCTCCAAGAGTCGACAGTACATG
TCCTGGAGAAAGGAGCGGTGACAGTACACTTTAGCACCGCGAGTCCACAGGCGAACTTTATCGTATCGCTGTGTG
GGAAGAAGACAACATGCAATGCAGAATGTAAACCACCAGCTGACCATATCGTGAGCACCCCGCACAAAAATGACC
AAGAATTTCAAGCCGCCATCTCAAAAACATCATGGAGTTGGCTGTTTGCCCTTTTCGGCGGCGCCTCGTCGCTAT
TAATTATAGGACTTATGATTTTTGCTTGCAGCATGATGCTGACTAGCACACGAAGATGACCGCTACGCCCCAATG
ATCCGACCAGCAAACTCGATGTACTTCCGAGGAACTGATGTGCATAATGCATcaggctggtacattagatcccc
gcttaccgcgggcaatatagcaacactaaaaactcgatgtacttccgaggaagcgcagtgcataatgctgcgcag
tggtgccacataaccactatattaaccatttatctagcggacgcaaaaaactcaatgtatttctgaggaagcgtg
gtgcataatgccacgcagcgtctgcataacttttattttcttttattaatcaaaaaattttgtttttaacat
ttc

Figure 2C

ATTGACGGCGTAGTACACACTATTGAATCAAACAGCCGACCAATTGCACTACCATCACAATGGAGAAGCCAGTAG
TAAACGTAGACGTAGACCCCCAGAGTCCGTTTGTCTGCAACTGCAAAAAAGCTTCCCGCAATTTGAGGTAGTAG
CACAGCAGGTCACTCCAAATGACCATGCTAATGCCAGAGCATTTCGCATCTGGCCAGTAAACTAATCGAGCTGG
AGGTTCCCTACCACAGCGACGATCTTGGACATAGGCAGCGCACCGGCTCGTAGAATGTTTTCCGAGCACCAGTATC
ATTGTGTCTGCCCCATGCGTAGTCCAGAAGACCCGGACCGCATGATGAAATATGCCAGTAAACTGGCGGAAAAAG
CGTGCAAGATTACAAACAAGAACTTGCATGAGAAGATTAAGGATCTCCGGACCGTACTTGATACGCCGGATGCTG
AAACACCATCGCTCTGCTTTCACAACGATGTTACCTGCAACATGCGTGCCGAATATTCCGTCATGCAGGACGTGT
ATATCAACGCTCCCGGAACCTATCTATCATCAGGCTATGAAAGGCGTGCGGACCTGTACTGGATTGGCTTCGACA
CCACCCAGTTCATGTTCTCGGCTATGGCAGGTTTCGTACCCTGCGTACAACACCAACTGGGCGGACGAGAAAGTCC
TTGAAGCGCGTAACATCGGACTTTGCAGCACAAAGCTGAGTGAAGGTAGGACAGGAAAATTGTGATAATGAGGA
AGAAGGAGTTGAAGCCCGGGTCGCGGGTTTATTTCTCCGTAGGATCGACACTTTATCCAGAACACAGAGCCAGCT
TGCAGAGCTGGCATCTTCCATCGGTGTTCCACTTGAATGGAAAGCAGTCGTACACTTGCCGCTGTGATACAGTGG
TGAGTTGCGAAGGCTACGTAGTGAAGAAAATCACCATCAGTCCCGGGATCACGGGAGAAACCGTGGGATACGCGG
TTACACACAATAGCGAGGGCTTCTTGCTATGCAAAGTTACTGACACAGTAAAAGGAGAACGGGTATCGTTCCCTG
TGTGCACGTACATCCCGGCCACCATATGCGATCAGATGACTGGTATAATGGCCACGGATATATCACCTGACGATG
CACAAAACTTCTGGTTGGGCTCAACCAGCGAATTGTCTTAACGGTAGGACTAACAGGAACACCAACACCATGC
AAAATTACCTTCTGCCGATCATAGCACAAGGGTTTCAGCAAATGGGCTAAGGAGCGCAAGGATGATCTTGATAACG
AGAAAATGCTGGGTACTAGAGAACGCAAGCTTACGTATGGCTGCTTGTGGGCGTTTTCGCACTAAGAAAGTACATT
CGTTTTATCGCCACCTGGAACGCAGACCATCGTAAAAGTCCAGCCTCTTTTAGCGCTTTTCCCATGTCTGTCGG
TATGGACGACCTCTTTGCCCATGTCTGCTGAGGCAGAAATTGAAACTGGCATTGCAACCAAAGAAGGAGGAAAAAC
TGCTGCAGGTCTCGGAGGAATTAGTCATGGAGGCCAAGGCTGCTTTTGAGGATGCTCAGGAGGAAGCCAGAGCGG
AGAAGCTCCGAGAAGCACTTCCACCATTAGTGGCAGACAAAGGCATCGAGGCAGCCGAGAAAGTTGTCTGCGAAG
TGGAGGGGCTCCAGGCGGACATCGGAGCAGCATTASTTGAAACCCCGCGCGGTACGTAAGGATAATACCTCAAG
CAAATGACCGTATGATCGGACAGTATATCGTTGTCTCGCCAACTCTGTGCTGAAGAATGCCAAACTCGCACCAG
CGCACCCGCTAGCAGATCAGGTTAAGATCATAACACACTCCGGAAGATCAGGAAGGTACGCGGTGCAACCATACG
ACGCTAAAGTACTGATGCCAGCAGGAGGTGCCGTACCATGGCCAGAATTCTTAGCACTGAGTGAGAGCGCCACGT
TAGTGTACAACGAAAGAGAGTTTGTGAACCGCAAACCTATACCACATTGCCATGCATGGCCCCGCCAAGAATACAG
AAGAGGAGCAGTACAAGGTTACAAAGGCAGAGCTTGCAGAAACAGAGTACGTGTTTGACGTGGACAAGAAGCGTT
GCGTTAAGAAGGAAGAAGCCTCAGGTCTGGTCTCTCGGGAGAACTGACCAACCCTCCCTATCATGAGCTAGCTC
TGGAGGGACTGAAGACCCGACCTGCGGTCCCGTACAAGGTGCAACAATAGGAGTGATAGGCACACCGGGGTGCG
GCAAGTCAGCTATTATCAAGTCAACTGTACGGCAGAGATCTTGTTACCAGCGGAAAGAAAGAAAATTGTGCGG
AAATTGAGGCCGACGTGCTAAGACTGAGGGGTATGCAGATTACGTGCAAGACAGTAGATTCCGGTTATGCTCAACG
GATGCCACAAAGCCGTAGAAGTGCTGTACGTTGACGAAGCGTTCGCGTGCCACGCAGGAGCACTACTTGCCTTGA
TTGCTATCGTCAGGCCCCGCAAGAAGGTAGTACTATGCGGAGACCCCATGCAATGCGGATTCTTCAACATGATGC
AACTAAAGGTACATTTCAATCACCTGAAAAAGACATATGCACCAAGACATTCTACAAGTATATCTCCCGGCGTT
GCACACAGCCAGTTACAGCTATTGTATCGACACTGCATTACGATGGAAAGATGAAAACCACGAACCCGTGCAAGA
AGAACATTGAAATCGATATTACAGGGGGCCACAAAGCCGAAGCCAGGGGATATCATCCTGACATGTTTCCGCGGGT
GGGTTAAGCAATTGCAAATCGACTATCCCGGACATGAAGTAATGACAGCCGCGGCCTCACAAGGGGCTAACCAGAA
AAGGAGTGTATGCCGTCCGGCAAAAAGTCAATGAAAACCCACTGTACGCGATCACATCAGAGCATGTGAACGTGT
TGCTCACCCGCACTGAGGACAGGCTAGTGTGGAAACCTTGCAGGGGCGACCCATGGATTAAGCAGCTCACTAACA
TACCTAAAGGAACTTTAGGCTACTATAGAGGACTGGGAAGCTGAACACAAGGGAATAATTGCTGCAATAAACA
GCCCCACTCCCCGTGCCAATCCGTTTACGTGCAAGACCAACGTTTGCTGGGCGAAAGCATTGGAACCGATACTAG
CCACGGCCGGTATCGTACTTACCGGTTGCCAGTGGAGCGAACTGTTCCACAGTTTGCGGATGACAAACCACATT
CGGCCATTTACGCCTTAGACGTAATTTGCATTAAAGTTTTTCGGCATGGACTTGACAAGCGGACTGTTTTCTAAAC
AGAGCATCCCACTAACGTACCATCCCGCCGATTTCAGCGAGGCCGGTAGCTCATTGGGACAACAGCCCAGGAACCC
GCAAGTATGGGTACGATCACGCCATTGCCGCCGAACCTCTCCCGTAGATTTCCGGTGTTCAGCTAGCTGGGAAGG
GCACACAACCTTGATTTGCAGACGGGGAGAACCAGAGTTATCTCTGCACAGCATAACCTGGTCCCGGTGAACCGCA
ATCTTCCTCACGCCTTAGTCCCCGAGTACAAGGAGAGCAACCCGGCCCGGTGCAAAAATTCTTGAACCAAGTTCA
AACACCACTCAGTACTTGTGGTATCAGAGGAAAAATTGAAGCTCCCCGTAAGAGAATCGAATGGATCGCCCCGA
TTGGCATAGCCGGTGCAGATAAGAACTACAACCTGGCTTTCGGGTTTCCGCCGACGGCACGGTACGACCTGGTGT
TCATCAACATTGGAACATAAATACAGAAACCACCACTTTCAGCAGTGCAGAACCATGCGGCGACCTTAAAAACCC
TTTCGCGTTCCGGCCCTGAATTGCCTTAACCCAGGAGCGACCCCTCGTGGTGAAGTCCTATGGCTACGCCGACCGCA
ACAGTGAGGACGTAGTCACCGCTCTTGCCAGAAAGTTTGTGAGGGTGTCTGCAGCGAGACCAGATTGTGTCTCA

GCAATACAGAAATGACCTGATTTTCCGACAACACTAGACAACAGCCGTACACGGCAATTCACCCCGCACCATCTGA
ATTGCGTGATTTTCGTCCGTGTATGAGGGTACAAGAGATGGAGTTGGAGCCGCGCCGTATACCCGCACCAAAAGGG
AGAATATTGCTGACTGTCAAGAGGAAGCAGTTGTCAACGCAGCCAATCCGCTGGGTAGACCAGGCGAAGGAGTCT
GCCGTGCCATCTATAAACGTTGGCCGACCAGTTTTTACCGATTACGCCACGGAGACAGGCACCCGCAAGAATGACTG
TGTGCCTAGGAAAGAAAGTGATCCACGCGGTTCGGCCCTGATTTCCGGAAGCACCCAGAAGCAGAAGCCTTGAAAT
TGCTACAAAACGCCTACCATGCAGTGGCAGACTTAGTAAATGAACATAACATCAAGTCTGTGCGCCATTCCACTGC
TATCTACAGGCATTTACGCAGCCGGAAGACCGCCTTGAAGTATCACTTAACTGCTTGACAACCCGCGCTAGACA
GAACTGACGCGGACGTAACCATCTATTGCCTGGATAAGAAGTGGAAGGAAAGAATCGACGCGGCACTCCAACCTTA
AGGAGTCTGTAACAGAGCTGAAGGATGAAGATATGGAGATCGACGATGAGTTAGTATGGATCCATCCAGACAGTT
GCTTGAAGGGAAGAAAGGGATTAGTACTACAAAAGGAAATTTGTATTCGTACTTTCGAAGGCACCAAATTCATC
AAGCAGCAAAAGACATGGCGGAGATAAAGGTCCTGTTCCCTAATGACCAGGAAAGTAATGAACAACCTGTGTGCCT
ACATATTGGGTGAGACCATGGAAGCAATCCGCGAAAAGTGCCCGGTGACCATTAACCCGTCTGTCTAGCCCGCCCA
AAACGTTGCCGTGCCTTTGTCATGTATGCCATGACGCCAGAAAGGGTCCACAGACTTAGAAGCAATAACGTCAAAG
AAGTTACAGTATGCTCCTCCACCCCCCTTCTAAGCACAAAATTAAGAATGTTTCAAGAGGTTTCAAGTGCACGAAAG
TAGTCCTGTTTAATCCGCACACTCCCGCATTCGTTCCCGCCCGTAAGTACATAGAAGTGCCAGAACAGCCTACCG
CTCCTCCTGCACAGGCCGAGGAGGCCCGGAAGTTGTAGCGACACCGTCACCATCTACAGCTGATAACACCTCGC
TTGATGTCACAGACATCTCACTGGATATGGATGACAGTAGCGAAGGCTCACTTTTTTTCGAGCTTTAGCGGATCGG
ACAACTCTATTACTAGTATGGACAGTTGGTCGTGAGGACCTAGTTCACTAGAGATAGTAGACCGAAGGCAGGTGG
TGGTGGCTGACGTTTATGCCGTCCAAGAGCCTGCCCCATTCCACCGCCAAGGCTAAAGAAGATGGCCCGCCTGG
CAGCGGCAAGAAAAGAGCCCACTCCACCGGCAAGCAATAGCTCTGAGTCCCTCCACCTCTCTTTTGGTGGGGTAT
CCATGTCCCTCGGATCAATTTTCGACGGAGAGACGGCCCGCCAGGCAGCGGTACAACCCCTGGCAACAGGCCCCA
CGGATGTGCCTATGTCTTTTCGGATCGTTTTCCGACGGAGAGATTGATGAGCTGAGCCGCAGAGTAACTGAGTCCG
AACCCGTCTGTGTTGGATCATTTGAACCGGGCGAAGTGAACCTCAATTATATCGTCCCGATCAGCCGTATCTTTTC
CACTACGCAAGCAGAGACGTAGACGCAGGAGCAGGAGGACTGAATACTGACTAACCAGGGGTAGGTGGGTACATAT
TTTCGACGGACACAGGCCCTGGGCACTTGCAAAAGAAGTCCGTTCTGCAGAACCAGCTTACAGAACCAGCCTTGG
AGCGCAATGTCTTGAAAGAATTATGCCCCGGTGCTCGACACGTGGAAGAGGAACAACCTCAAACCTCAGGTACC
AGATGATGCCCACCGAAGCCAACAAAAGTAGGTACCAGTCTCGTAAAGTAGAAAATCAGAAAGCCATAACCACTG
AGCGACTACTGTCAGGACTACGACTGTATAACTCTGCCACAGATCAGCCAGAATGCTATAAGATCACCTATCCGA
AACCATTGTACTCCAGTAGCGTACCGGCGAACTACTCCGATCCACAGTTCGCTGTAGCTGTCTGTAACAACATATC
TGCATGAGAACTATCCGACAGTAGCATCTTATCAGATTACTGACGAGTACGATGCTTACTTGGATATGGTAGACG
GGACAGTCGCCTGCCTGGATACTGCAACCTTCTGCCCCGCTAAGCTTAGAAGTTACCCGAAAAAACATGAGTATA
GAGCCCCGAATATCCGCAGTGCGGTTCCATCAGCGATGCAGAACACGCTACAAAATGTGCTCATTGCCGCAACTA
AAAGAAATTGCAACGTACGCAGATGCGTGAACCTGCCAACACTGGACTCAGCGACATTCAATGTGCAATGCTTTC
GAAAATATGCATGTAATGACGAGTATTGGGAGGAGTTTCGCTCGGAAGCCAATTAGGATTACCACTGAGTTTGTCA
CCGCATATGTAGCTAGACTGAAAGGCCCTAAGGCCGCGCACTATTTGCAAAGACGTATAATTTGGTCCCATTGC
AAGAAGTGCCTATGGATAGATTTCGTATGGACATGAAAAGGGACGTGAAAGTTACACCAGGCACGAAACACACAG
AAGAAAGACCGAAAGTACAAGTGATAACGCCGAGAACCCCTGGCGACTGCTTACTTATGCGGGATTACCCGGG
AATTAGTGCGTAGGCTTACGGCCGTCTTGCTTCCAAACATTACACGCTTTTTTGACATGTCGGCGGAGGATTTTG
ATGCAATCATAGCAGAACACTTCAAGCAAGGCGACCCGGTACTGGAGACGGATATCGCATCATTTCGACAAAAGCC
AAGACGACGCTATGGCGTTAACCGGTCTGATGATCTTGGAGGACCTGGGTGTGGATCAACCACTACTCGACTTGA
TCGAGTGCGCCTTTGGAGAAATATCATCCACCCATCTACCTACGGGTACTCGTTTTAAATTCGGGGCGATGATGA
AATCCGGAATGTTCTCACAATTTTTGTCAACACAGTTTTGAATGTGCTTATCGCCAGCAGAGTACTAGAAGAGC
GGCTTAAAACGTCCAGATGTGCAGCGTTCATTGGCGACGACAACATCATACTGGAGTAGTATCTGACAAAGAAA
TGGCTGAGAGGTGCGCCACCTGGCTCAACATGGAGGTTAAGATCATCGACGAGTATCGGTGAGAGACCACCTT
ACTTCTGCGGCGGATTTATCTTGCAAGATTCGGTTACTTCCACAGCGTGCCGCGTGGCGGACCCcctgaaaagggc
tgtttaagttgggtaaacccgctcccagccgacgacgagcaagacgaagacagaagacgcgctctgctagatgaaa
caaaggcgtgggttagagtaggtataacaggcacttttagcagtggccgtgacgacccggtatgaggtagacaata
ttacacctgtcctactggcattgagaacttttgcccagagcaaaagagcattccaagccatcagaggggaaataa
agcatctctacggtggtcctaaatagtcagcatagtagcatcttcatctgactaataactacaacaccaccacatga
atagaggattctttaacatgctcggccgcccgttcccggccccactgccatgtggaggccgaggAGAAAGGA
GGCAGGCGGCCCCGATGCCTGCCCGCAACGGGCTGGCTTCTCAAATCCAGCAACTGACCACAGCCGTGAGTGCCC
TAGTCATTGGACAGGCAACTAGACCTCAACCCCCACGTCCACGCCCCGCCACCGCGCCAGAAGAAGCAGGCGCCCCA
AGCAACCACCGAAGCCGAAGAAACCAAAAACGCAGGAGAAGAAGAAGAAGCAACCTGCAAAAACCCAAACCCGGAA
AGAGACAGCGCATGGCACTTAAGTTGGAGGCCGACAGATCGTTCGACGTCAAGAACGAGGACGGAGATGTCATCG
GGCAGCACTGGCCATGGAAGGAAAGGTAATGAAACCTCTGCACGTGAAAGGAACCATCGACCACCCCTGTGCTAT
CAAAGCTCAAATTTACCAAGTCGTACGATACGACATGGAGTTTCGACAGTTGCCAGTCAACATGAGAAGTGAGG
CATTCACCTACACCAGTGAACACCCCGAAGGATTCTATAACTGGCACCACGGAGCGGTGCAGTATAGTGGAGGTA
GATTTACCATCCCTCGCGGAGTAGGAGGCAGAGGAGACAGCGGTCTCGATCATGGATAACTCCGGTCTGGTTG

TCGCGATAGTCCTCGGTGGAGCTGATGAAGGAACACGAACTGCCCTTTCCGGTCGTCACTTGGGAATAGTAAAGGGA
AGACAATTAAGACGACCCCGGAAGGGACAGAAGAGTGGTCCGCAGCACCCTGGTCACGGCAATGTGTTTGCTCG
GAAATGTGAGCTTCCCATGCGACCGCCCGCCACATGCTATACCCGCGAACCTTCCAGAGCCCTCGACATCCTTG
AAGAGAACGTGAACCATGAGGCCTACGATACCCTGCTCAATGCCATATTGCGGTGCGGATCGTCTGGCAGAAGCA
AAAGAAGCGTCACTGACGACTTTACCCTGACCAGCCCCTACTTGGGCACATGCTCGTACTGCCACCATACTGAAC
CGTGCTTCAGCCCTGTAAAGATCGAGCAGGTCTGGGACGAAGCGGACGATAACACCATAACGACACTTCCG
CCCAGTTTGGATACGACCAAAGCGGAGCAGCAAGCGCAAACAAGTACCGCTACATGTGCTTAAGCAGGATCACA
CCGTAAAGAAGGCACCATGGATGACATCAAGATTAGCACCTCAGGACCGTGTAGAAGGCTTAGCTACAAAGGAT
ACTTTCTCCTCGCAAAATGCCCTCCAGGGGACAGCGTAACGGTTAGCATAGTGAGTAGCAACTCAGCAACGTCAT
GTACACTGGCCCCGCAAGATAAAACCAAATTCGTGGGACGGGAAAATATGATCTACCTCCCCTTACGGTAAAA
AAATTCCTTGACAGTGTACGACCGTCTGAAAGAAACAACCTGCAGGCTACATCACTATGCACAGGCCGGGACCGC
ACGCTTATACATCCTACCTGGAAGAATCATCAGGGAAAGTTTACGCAAAGCCGCCATCTGGGAAGAACATTACGT
ATGAGTGCAAGTGCGGCGACTACAAGACCAGAACCCTTTCGACCCGCAACCGAAATCACTGGTTGCACCGCCATCA
AGCAGTGCGTCGCTATAAGAGCGACCAAACGAAGTGGGTCTTCAACTCACCGGACTTGATCAGACATGACGACC
ACACGGCCCCAAGGGAAATTGCATTTGCCCTTCAAGTTGATCCCGAGTACCTGCATGGTCCCTGTTGCCACGCGC
CGAATGTAATACATGGCTTTAAACACATCAGCCTCCAATTAGATACAGACCACTTGACATTGCTCACCACCAGGA
GACTAGGGGGCAAACCCGGAACCAACCACTGAATGGATCGTCGGAAAGACGGTCAGAACTTCACCGTCGACCGAG
ATGGCCTGGAATACATATGGGGAAATCATGAGCCAGTGAGGGTCTATGCCCAAGAGTCAGCACCAGGAGACCTC
ACGGATGGCCACACGAAATAGTACAGCATTACTACCATCGCCATCCTGTGTACACCATCTTAGCCGTGCGATCAG
CTACCGTGGCGATGATGATTGGCGTAACTGTTGCAGTGTTATGTGCCTGTAAAGCGCGCCGTGAGTGCCTGACGC
CATACGCCCTGGCCCCAAACGCGCTAATCCCAACTTCGCTGGCACTCTTGTGCTGCGTTAGGTCCGCCAATGCTG
AAACGTTACCGGAGACCATGAGTTACTTGTGGTTCGAACAGTCAGCCGTTCTTCTGGGTCCAGTTGTGCATACCTT
TGGCCGCTTTCATCGTTCTAATGCGCTGCTGCTCCTGCTGCCTGCCCTTTTTTAGTGGTTGCCGGCGCCTACCTGG
CGAAGGTAGACGCCTACGAACATGCGACCACTGTTCCAAATGTGCCACAGATACCGTATAAGGCACTTGTTGAAA
GGGCAGGGTATGCCCCGCTCAATTTGGAGATCACTGTCATGTCCTCGGAGGTTTTGCCTTCCACCAACCAAGAGT
ACATTACCTGCAAATTCACCACTGTGGTCCCCTCCCCAAAATCAAATGCTGCGGCTCCTTGGAATGTCAGCCGG
CCGTTTCATGCAGACTATACCTGCAAGGTCTTCGGAGGGGTCTACCCCTTTATGTGGGGAGGAGCGCAATGTTTTT
GCGACAGTGAGAACAGCCAGATGAGTGAGGCGTACGTCGAACTGTCAGCAGATTGCGCGTCTGACCACGCGCAGG
CGATTAAGGTGCACACTGCCGCGATGAAAGTAGGACTGCGTATAGTGACGGGAACACTACCAGTTTCCTAGATG
TGACGTGAACGGAGTCACACCGGAACGTCTAAAGACTTGAAAGTCATAGCTGGACCAATTTACGATCGTTTA
CGCCATTTCGATCATAAGGTCGTTATCCATCGCGCCTGGTGTACAACTATGACTTCCCGGAATATGGAGCGATGA
AACCAGGAGCGTTTGGAGACATTCAAGCTACCTCCTTGACTAGCAAGGATCTCATCGCCAGCACAGACATTAGGC
TACTCAAGCCTTCCGCCAAGAACGTGCATGTCCCGTACACGCGAGGCCGCATCAGGATTTGAGATGTGGAAAAACA
ACTCAGGCCGCCCACTGCAGGAAACCGCACCTTTCGGGTGTAAGATTGCAGTAAATCCGCTCCGAGCGGTGGACT
GTTTCATACGGGAACATTCCCATTCTATTGACATCCCGAACGCTGCCTTTATCAGGACATCAGATGCACCACTGG
TCTCAACAGTCAAATGTGAAGTCAGTGAGTGCCTTATTGAGCAGACTTCGGCGGGATGGCCACCCTGCAGTATG
TATCCGACCGCGAAGGTCAATGCCCCGTACATTGCGATTGAGCACAGCAACTCTCCAAGAGTCGACAGTACATG
TCCTGGAGAAAGGAGCGGTGACAGTACACTTTAGCACCGCGAGTCCACAGGCGAACTTTATCGTATCGCTGTGTG
GGAAGAAGACAACATGCAATGCAGAATGTAAACCACCAGCTGACCATATCGTGAGCACCCCGCACAAAATGACC
AAGAATTTCAAGCCGCCATCTCAAAAACATCATGGAGTTGGCTGTTTGCCCTTTTCGGCGGGCGCCTCGTCGCTAT
TAATTATAGGACTTATGATTTTGTCTTGCAGCATGATGCTGACTAGCACACGAAGATGACCGCTACGCCCCAATG
ATCCGACCAGCAAACTCGATGTACTTCCGAGGAACTGATGTGCATAATGCATcaggctggtacattagatcccc
gcttaccgcgggcaatatagcaacactaaaaactcgatgtacttccgaggaagcgcagtgcataatgctgcgag
tggtgccacataaccactatattaaccattttatctagcggacgcaaaaactcaatgtattttctgaggaagcgtg
gtgcataatgccacgcagcgtctgcataacttttattatttcttttattaatcaacaaaattttgtttttaacat
ttc

Figure 3. Infection of human dendritic cells with a DC adapted alphavirus vector (DC+) expressing GFP

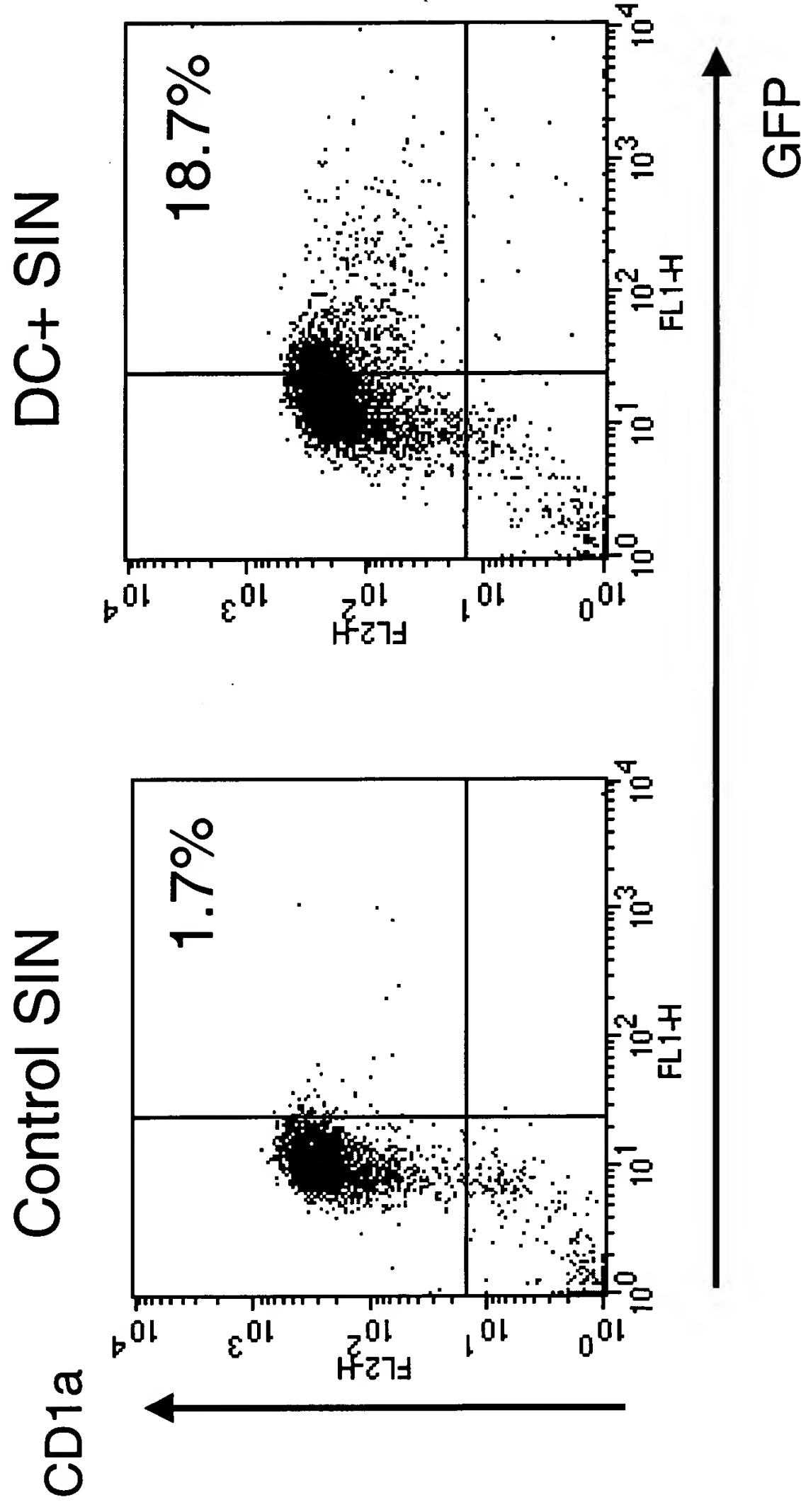


Figure 4. Increased potency of new SINCR alphavirus replicon

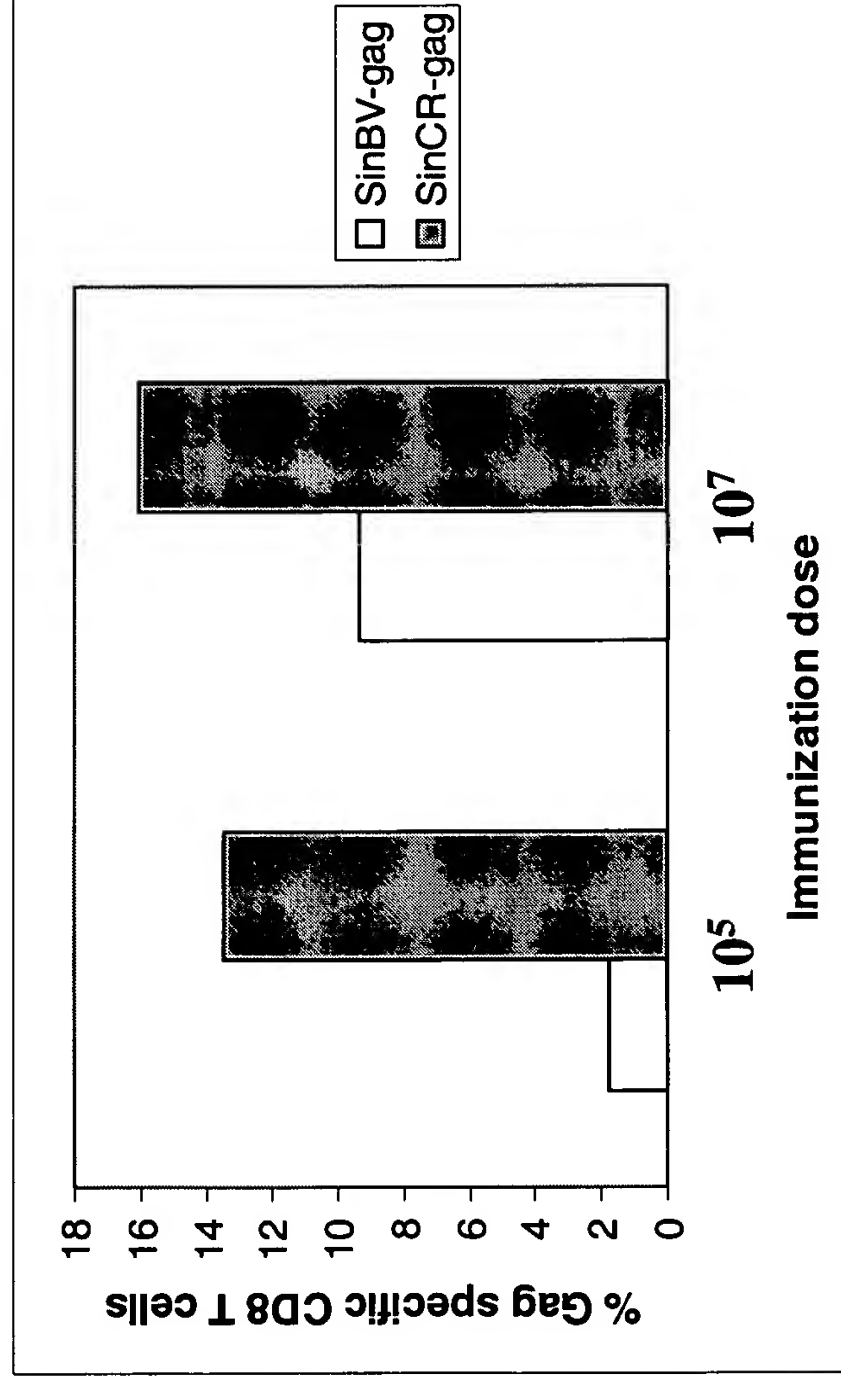


Figure 5. DC+ SIN vectors target immature human dendritic cells

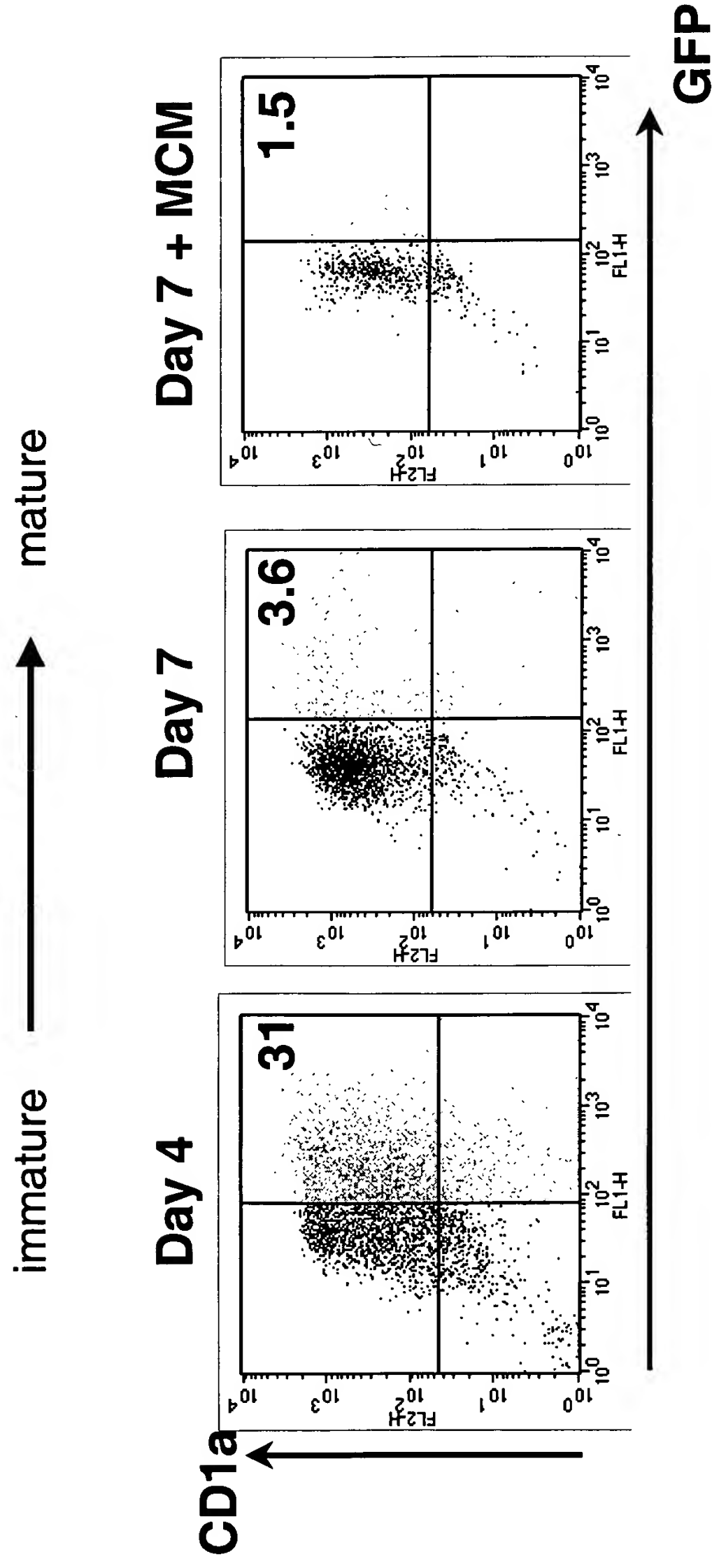
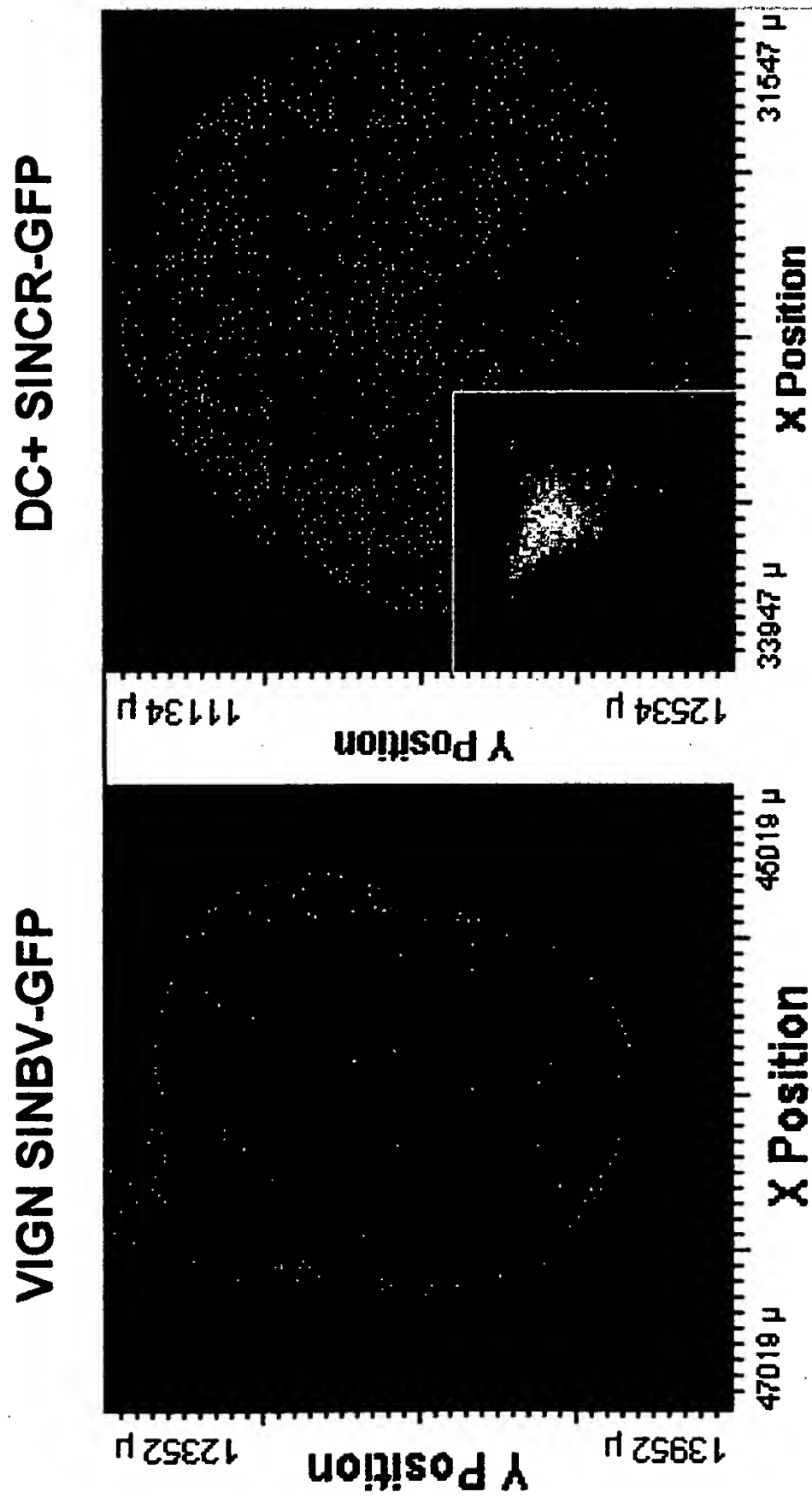
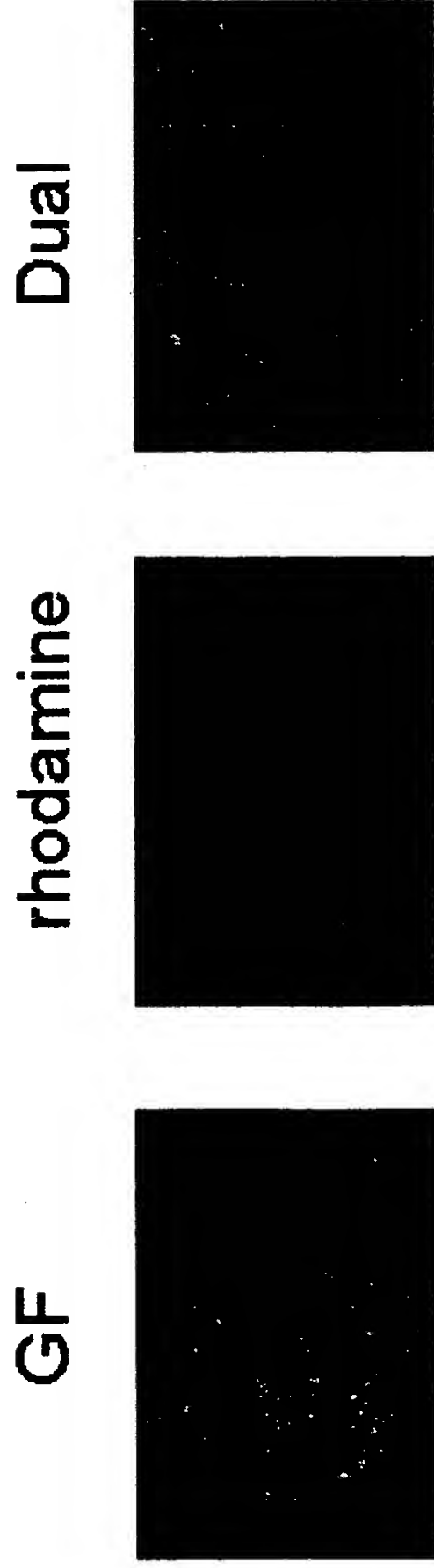


Figure 6



BEST AVAILABLE COPY

Figure 7. Trafficking of alphavirus vector transduced DC
to the mandibular lymph node

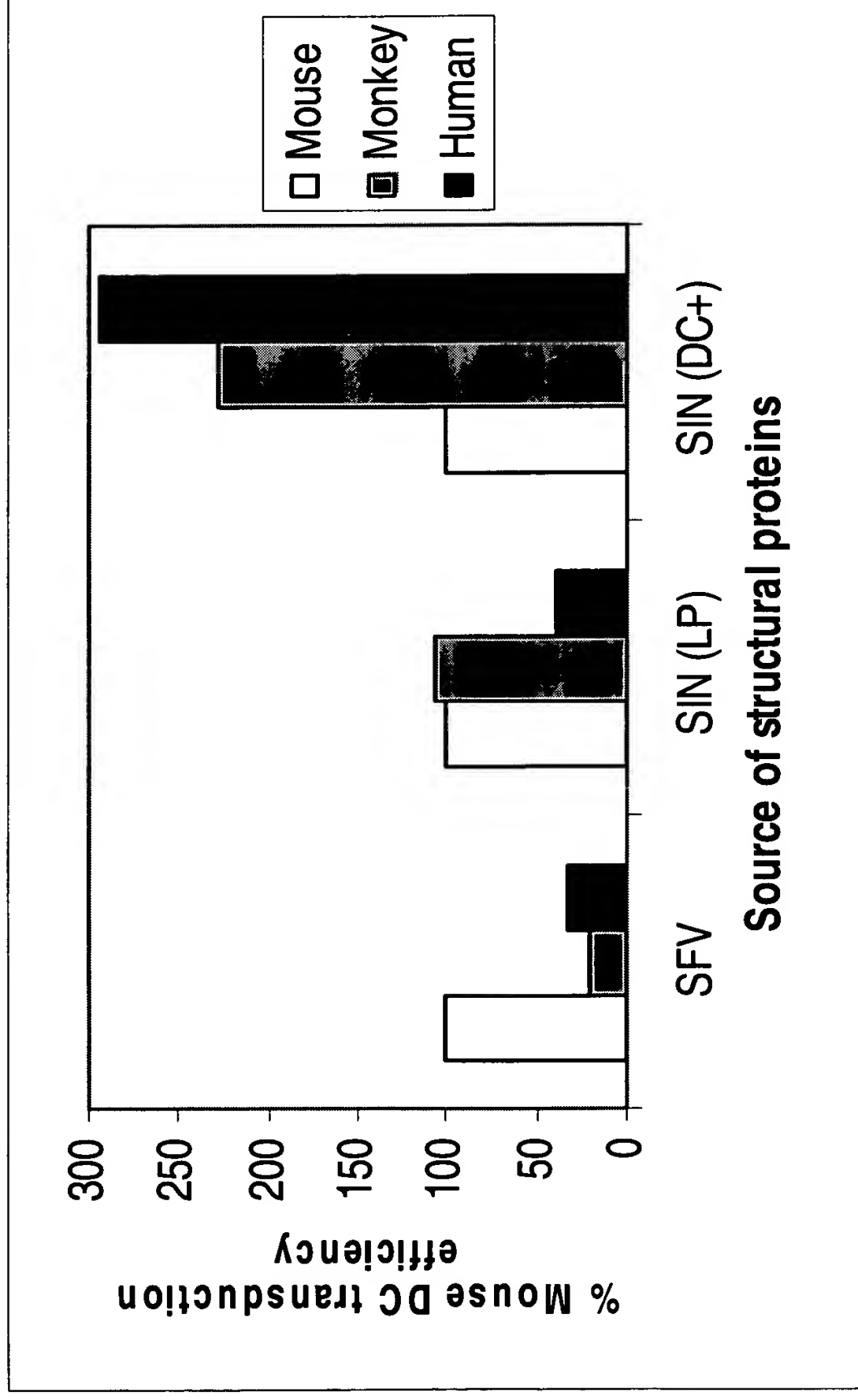


x20

SIN-GFP vector injected intradermally, with rhodamine paint applied to skin

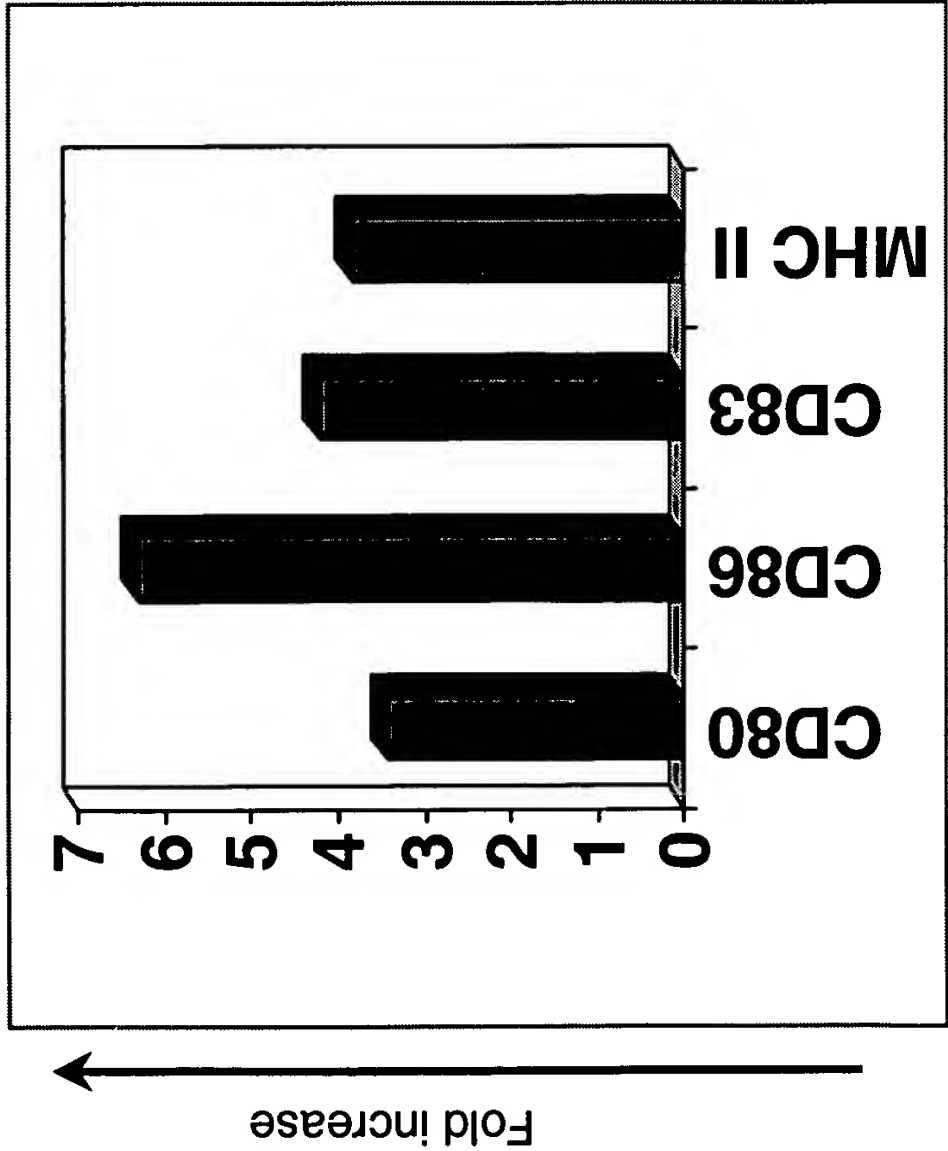
BEST AVAILABLE COPY

Figure 8. Mouse DC transduction is not predictive of the ability of alphavirus vectors to transduce human DC



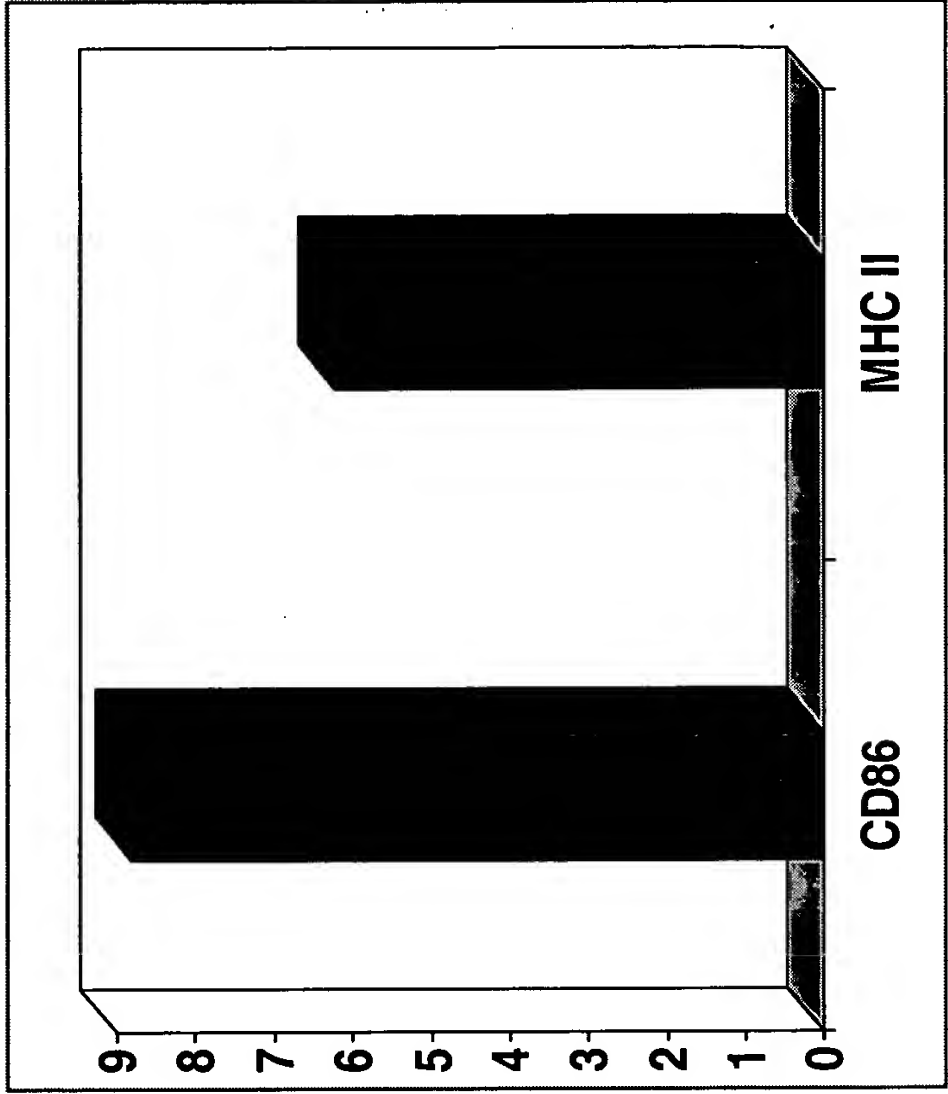
Alphavirus vectors can induce DC maturation and activation both *in vitro* and *in vivo*

Human DC *in vitro*



Monocyte

Mouse DC *in vivo*



CD11c⁺ from lymph node

Fig. 9

Adapted alphavirus vectors can be used to assay antigen presentation and immune stimulation in vitro

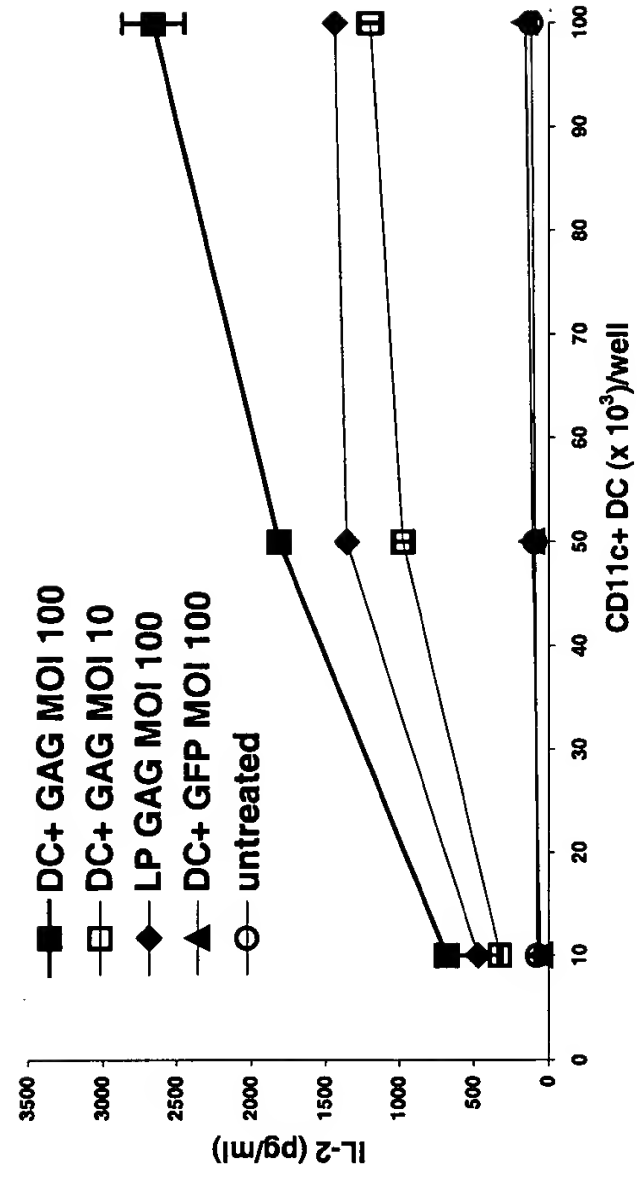


Fig. 10

Increased potency of new SINCR alphavirus replicon

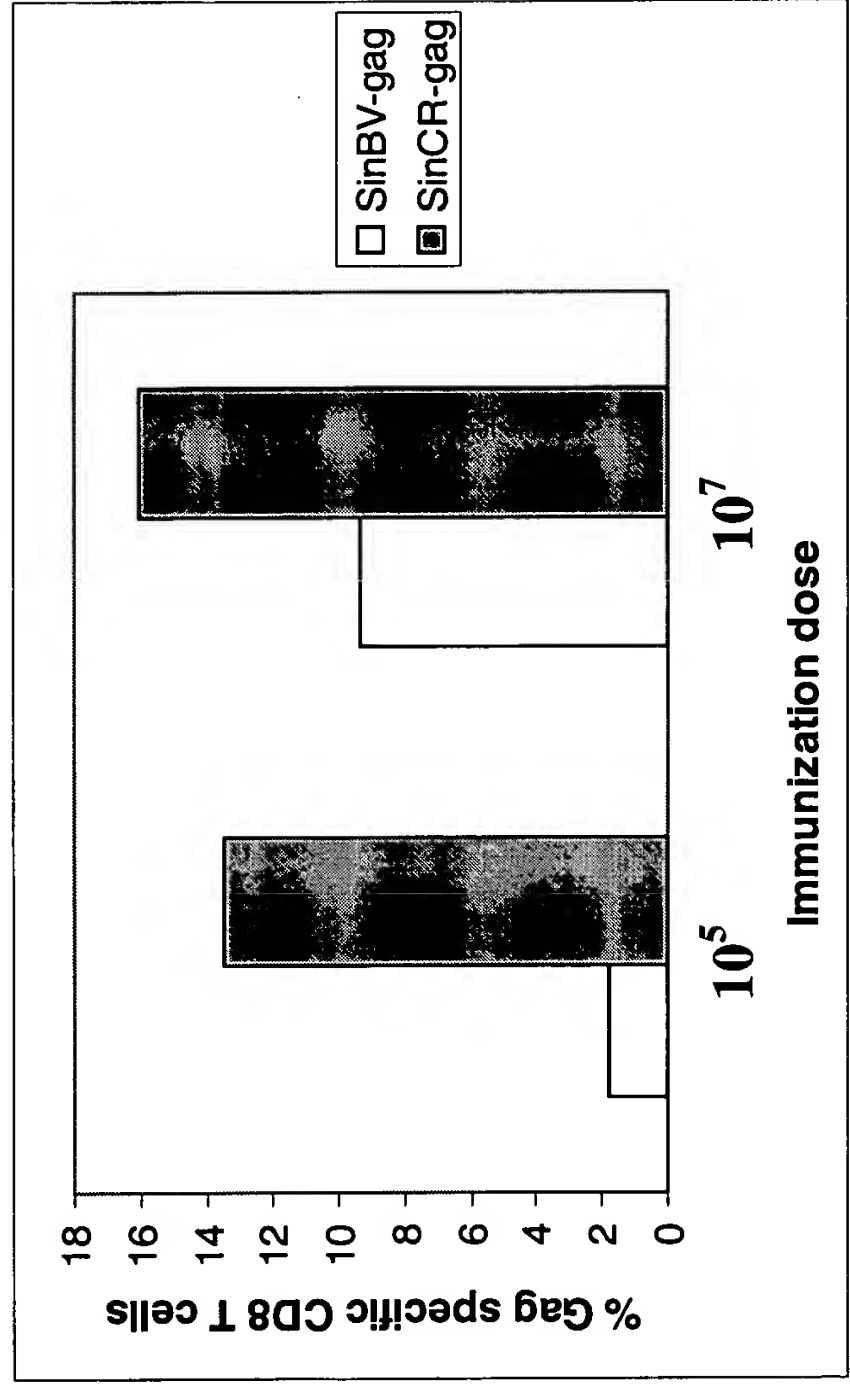


Fig. 11

Enhanced immune response by using a prime-boost strategy

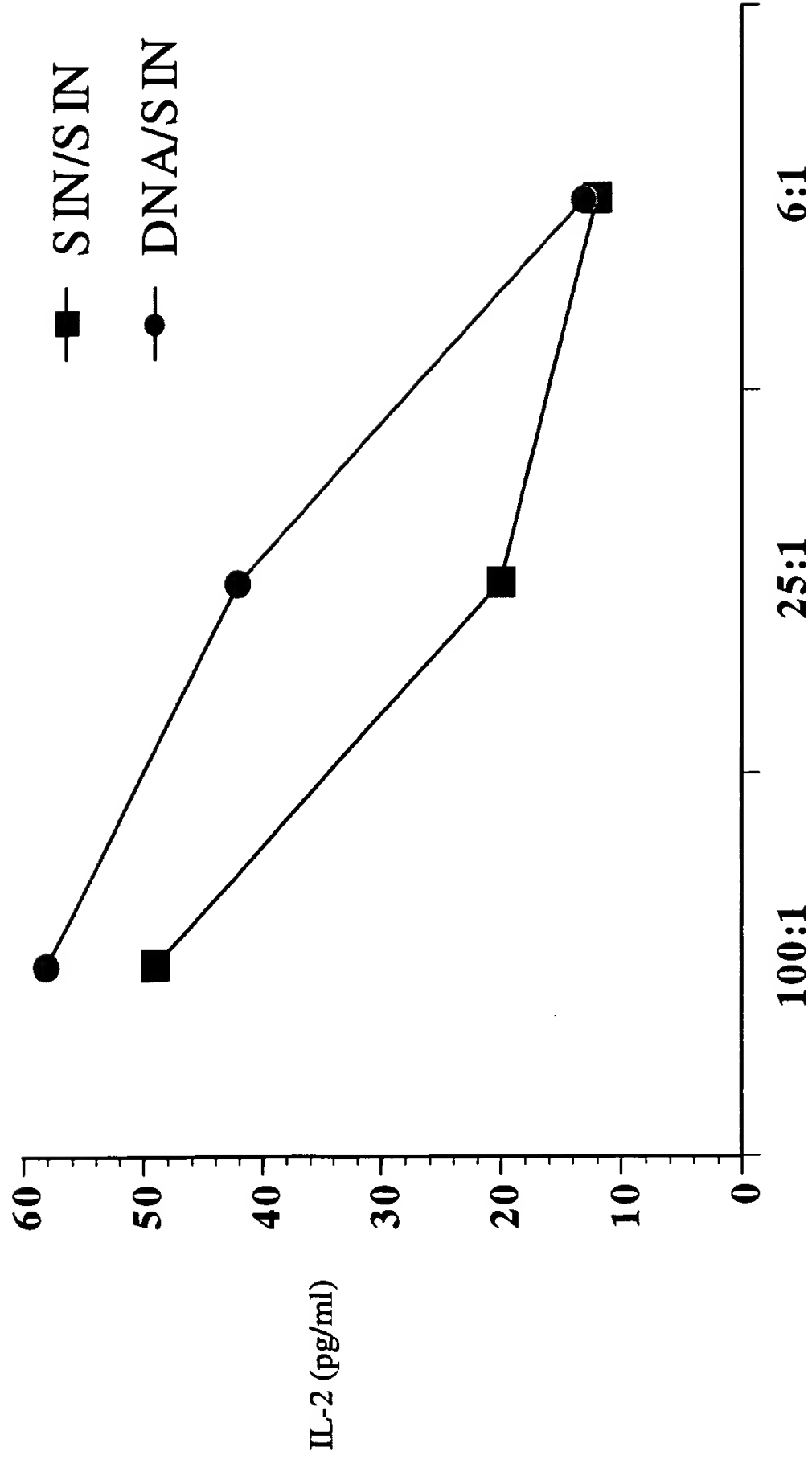


Fig. 12